REMARKS/ARGUMENTS

Claims 1-48 are pending in the present application.

This Response is in response to the Office Action mailed December 21, 2005. In the Office Action, the Examiner rejected claims 9-12, 15-20, 23, and 24 under 35 U.S.C. §102(b). Reconsideration in light of the remarks made herein is respectfully requested.

Election/ Restrictions

In the Office Action, the Examiner contends that Claims 13-14 and 21-22 contain only limitations toward an inductor or capacitor and not the elected generic "passive element" species. Applicants respectfully disagree. Claims 13-14 and 21-22 further provide limitations to the passive element. As the Examiner may be well aware, a passive element may be an inductor and a capacitor.

Accordingly, Applicants request the decision to withdraw claims 13-14 and 21-22 be withdrawn.

Rejection Under 35 U.S.C. § 102

In the Office Action, the Examiner rejected claims 9-12, 15-20, and 23-24 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,821,624 issued to Pasch et al. ("Pasch"). Applicants respectfully traverse the rejection and contend that the Examiner has not met the burden of establishing a prima facie case of anticipation.

Pasch discloses a semiconductor device assembly technique using preformed planar structures. A programmable interposer may use embedded electronic switches because any electronic element, active or passive, may be embedded in the interposer (Pasch, col. 24, lines 34-42). An adhesive may be used to keep the substrate/interposer/ die stack under compression (Pasch, col. 25, lines 22-25). The interposers with their associated probe finger contacts may provide electrical contact with the solder bumps on a facing die (Pasch, col. 24, lines 54-56).

Pasch does not disclose, either expressly or inherently, at least one of (1) a passive element integrated on a spacer between upper and lower dies in stacked dies, and (2) conductors attached to the passive element to connect the passive element to at least one of the upper and lower dies.

Pasch merely discloses an assembly of a die 1110 to a substrate 1130 includes an interposer 1120 (Pasch, col. 20, lines 7-10), not stacked dies. Furthermore, Pasch does not disclose a passive element or conductors.

The Examiner contends that Pasch discloses a passive element integrated on a spacer between upper and lower dies, citing Pasch, col. 24, lines 39-41. Applicants respectfully disagree. The cited excerpt is copied below for ease of reference:

> "..any or all of the "programming holes" (e.g., 1192c) can be replaced with embedded electronic switches (e.g., FET's or similar elements) in the interposer to provide for electronic programmability of the interposer rather than the "mechanical" hole-filling technique. This is possible since any type of electronic element, active or passive, can be embedded in the interposer." (Pasch, col. 24, lines 34-41.)

The above excerpt merely states a passive element may be embedded in the interposer, not integrated on a spacer between up and lower dies. There are no stacked dies. Therefore, there are no upper and lower dies. Applicants note that the phrase substrate/interposer/die stack used in Pasch (Pasch, col. 25, lines 22-24) merely indicates a stack of a substrate, an interposer and a die. This is clearly different from a stack of dies, or stacked dies, which include a number of dies stacking on each other.

The Examiner further contends that Pasch discloses conductors attached to the passive element to at least one of the upper and lower dies, citing Pasch, col. 24, lines 53-58. Applicants respectfully disagree. The cited excerpt is copied below for ease of reference.

> ". . . the "traced" interposers of this invention, with their associated probe finger contacts, may provide electrical contact with the solder bumps on a facing die, if the die and substrate are placed under moderate pressure to force them together, even before the solder bumps are melted together." (Pasch, col. 24, lines 53-58.)

The above excerpt merely states that the interposers and the finger contacts may provide electrical contact with the solder bumps, not conductors attached to the passive element to at least one of the upper and lower dies. There is no passive element. Furthermore, there are no stacked dies.

Regarding claim 17, the Examiner contends that Pasch teaches a plurality of stacked dies and a spacer assembly, citing Figure 11B and col. 24, lines 39-41. Applicants respectfully disagree. Figure 11B merely shows the die 1110, the interposer 1120, and the substrate 1130. There is only a single die, namely the die 1110. As discussed above, the stack of die, interposer, and substrate is not the same as a stack of dies or stacked dies which include a number of dies.

To anticipate a claim, the reference must teach every element of the claim. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Vergegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ 2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the...claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ 2d 1913, 1920 (Fed. Cir. 1989). Since the Examiner failed to show that Pasch teaches or discloses any one of the above elements, the rejection under 35 U.S.C. §102 is improper.

Therefore, Applicants believe that independent claims 9 and 17 and their respective dependent claims are distinguishable over the cited prior art references. Accordingly, Applicants respectfully request the rejection under 35 U.S.C. §102(b) be withdrawn.

Conclusion

Applicants respectfully request that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

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